

culari-ovatâ, intus nigro-marginatâ; columellâ brevi, tereti, extus reflexâ.

Altit. 8, diam. 5, altit. aperturæ $3\frac{3}{4}$ lin.

Hab. Panama (found on the rocks, half-tide, Cuming).

This species differs by its aperture so much from the other species of *Littorina*, and so nearly resembles a *Bulimus*, that I am very doubtful whether it be placed in its right genus.

ROYAL SOCIETY.

January 22, 1846.—“On the Supra-renal, Thymus and Thyroid Bodies.” By John Goodsir, Esq. Communicated by Richard Owen, Esq., F.R.S. &c.

In this paper, the author enters on the development of the theory he advanced two years ago with regard to the origin and nature of the supra-renal, thymus and thyroid bodies, and the correctness of which, with certain modifications, he has been enabled to confirm by subsequent observation and reflection. His hypothesis was that the three organs in question are the remains of the blastoderma; the thyroid being the development of a portion of the original cellular substance of the germinal membrane grouped around the two branches of the omphalo-mesenteric vein; the supra-renal capsules, the developments of other portions grouped around the omphalo-mesenteric arteries; and the thymus, the development of the intermediate portion of the membrane arranged along the sides of the embryonic visceral cavity. He has since ascertained, however, that the thyroid body derives its origin in a portion of the included *membrana intermedia* remaining in connexion with anastomosing vessels between the first and second aortic arches, or carotid and subclavian vessels. He considers these organs as essentially similar in their structure, as well as in their origin in continuous portions of the blastoderma situated along each side of the spine, and extending from the Wolfian bodies to the base of the cranium: the development of the supra-renal capsules having relation to the omphalo-mesenteric vessels; the thymus, to the jugular and cardinal veins and ductus Cuvieri; and the thyroid gland, to the anastomosing branches of the first and second aortic arches. The functions of these organs he regards as being analogous to those of the blastoderma; with this difference, however, that as the blastoderma not only elaborates nourishment for the embryo, but absorbs it also from without, that is, from the yolk, the developed organs only elaborate the matter which has already been absorbed by the other parts, and is now circulating in the vessels of the more perfect individual.

Feb. 5.—“On the Secretory Apparatus and Function of the Liver.” By C. Handfield Jones, M.D. Communicated by Sir Benjamin C. Brodie, Bart., F.R.S.

The author is led by his researches into the minute structure of the liver, to results which confirm the view of Mr. Bowman, in opposition to those of Mr. Kiernan on this subject; and particularly with regard to the absence of real tubercular ducts from the interior of the lobules. He concludes that the secreting process commences

in the rows of epithelial cells surrounding the central axis of the lobule, and that the fluid there secreted is transmitted to the cells forming the margin of the lobule, where it is further elaborated, and, by the bursting of these cells, is conveyed into the cavity of the surrounding duct. A few diagrams are annexed, illustrative of the descriptions of microscopic structure given in the paper.

Feb. 19.—“On the Mechanism of Respiration.” By Francis Sibson. Communicated by Thomas Bell, Esq., F.R.S.

This paper is almost entirely occupied with anatomical details, collected from an extensive series of dissections of the muscles and bones concerned in the act of respiration in man and the lower animals, for the purpose of elucidating the mechanism of their action both in inspiration and in expiration; accompanied by a great number of illustrative diagrams and drawings. The author commences with the serpent tribes, which present the simplest form of ribs, being attached only at their vertebral ends, while their anterior ends are free. When these ribs are brought forwards by the action of the levatores costarum and external intercostal muscles, the chest is expanded; and when drawn backwards by the long depressors, internal intercostals and transversales, expiration is effected. In birds there are added to the former apparatus a sternum, and a series of sternal ribs, the respiratory movements of which are performed in directions the reverse of those of the vertebral ribs. During inspiration, the angles between the vertebral and sternal ribs become more open; the sternum moves forwards, and the spinal column slightly backwards, by the combined action of the scaleni and sterno-costal muscles on the first vertebral and first sternal ribs respectively; of the levatores costarum and external intercostal on all the lower vertebral ribs, and of the sternal intercostals on all the lower sternal ribs. On expiration these movements are reversed by the action of the internal intercostals, the external and internal oblique, recti, transversales and other muscles. The mechanism in the Mammalia is further assisted and modified by the addition of a large and powerful diaphragm. The thoracic ribs are articulated with the sternum by the medium of cartilages corresponding to the sternal ribs of birds: those ribs which are connected with the inferior curve of the dorsal arch have floating cartilages, and may be considered as a diaphragmatic set of ribs. When raised, the former approach each other, and the latter recede from each other anteriorly. Intermediate to these are the longer ribs connected with the dorsal arch, having their cartilages united, and articulated with the lower end of the sternum. The scaleni muscles invariably act during the whole time of inspiration. The external intercostals between the thoracic ribs are also throughout inspiratory; but those portions which are situated between their cartilages are expiratory; and those between the diaphragmatic ribs are inspiratory behind, expiratory to the side, and in front, and inspiratory between their cartilages. Between the intermediate ribs, they are for the most part slightly inspiratory between the ribs, and expiratory in front, between the cartilages. The external intercostals of the thoracic ribs are expiratory behind, and inspiratory in front, if the ribs approach

these, and are inspiratory between their costal cartilages. Between the diaphragmatic and intermediate sets of ribs, and between their cartilages they are throughout expiratory. The levatores costarum draw the posterior portion of the lower ribs backwards. In the ass and the dog, the upper fasciculi of the serratus magnus are expiratory, the lower inspiratory, and the intermediate neutral. In man, the greater part of the fasciculi of this muscle is expiratory. In the ass, the lower fibres of the serratus posticus inferior are inspiratory, and the upper fibres expiratory. In the dog and in man, all are throughout expiratory.

MISCELLANEOUS.

Notice of a Black Lizard taken in Cheshire. By W. WELLS, Esq.
To Sir W. Jardine.

Rimrose House, Bootle, Liverpool, April 12th, 1846.

SIR,—When botanizing at Bidston, Cheshire, a few days ago, I met with a lizard a description of which I send you, hoping you will excuse the liberty which I have taken and the imperfections of my remarks, as I am but a tyro in this department of science.

The head, back and throat are a shining black; scales of the belly and tail black, tipped with dark brown. The scales of the head are less numerous than in *Zootoca vivipara*, which it resembles in size and shape except that it is more slender, the tail is longer and more tapering, the head is more bulky, the eyes are perfectly circular and surrounded by a beautiful ring of minute scales, the scales forming the eyebrows do not project over the eye, and those of the back are much smaller than in the common species, which was abundant in the same locality.

DIMENSIONS.

Length of head	$\frac{5}{16}$ inch.
Body	$1\frac{3}{4}$
Tail	$3\frac{1}{2}$
Total	$5\frac{9}{16}$
Greatest breadth of head	$\frac{1}{2}$
Circumference of body	$1\frac{3}{8}$
Length of longest toe	$\frac{5}{8}$
Shortest	$\frac{1}{10}$
Scales of the head	20
Joints [scales?] of the tail	62

I am aware that in the 'Mag. Nat. Hist.' vol. i. p. 189, New Series, mention is made of a black lizard by G. W. in a note to his paper on Vipers, but I conceive that the difference between that and the one I have attempted to describe entitles me to consider them different. I have kept a considerable number both of the viviparous and the sand lizard, but none of them evinced the very irritable, untameable disposition of this one; they are in general easily tamed, but the black one seizes everything that is put near it, and never